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**THE HIERARCHY AND NECESSITY PRINCIPLES: A CRITICAL
EXAMINATION OF JOINTNESS**


By

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A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The Contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract

THE HIERARCHY AND NECESSITY PRINCIPLES: A CRITICAL EXAMINATION OF JOINTNESS

Our military has struggled with jointness and specifically with overcoming service biases and doctrinal differences in joint operations. Recently, CAPT Robert C. Rubel developed principles in an effort to advance joint theory. The development of these principles is a first step towards a clinical examination of jointness.

This paper introduces the qualities of the Hierarchy and Necessity Principles by examining World War II examples. Using these two principles, the paper critically analyzes the affects of the Goldwater-Nichols Act (GNA) on jointness. It argues that the GNA has not done enough to eliminate service biases in joint operational decision-making, as demonstrated in the Gulf War and Kosovo. It makes specific recommendations to speed-up the evolutionary process of jointness for the future.

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Introduction

With decreasing budgets and an uncertain future, the military must find innovative ways to handle the challenges that will span the spectrum of unlimited warfare to military operations other than war (MOOTW). Handling these future conflicts requires a proactive, joint effort from all of the services. Despite the need to cooperate and synchronize service efforts, history demonstrates the difficulty the U.S. military has had in accomplishing this goal. There are success stories; however, they are the exception and not the rule. Because of this, Congress has attempted to mandate jointness for the services. Such legislation has come in the form of the 1947 National Security Act, the 1958 Department of Defense Reorganization Act, and most notably, the Goldwater-Nichols Act (GNA) in 1986. Since the enactment of the GNA, Joint Doctrine and Joint Vision statements have aggressively pursued the advancement of jointness. Yet, even after all of these efforts, service cultural biases and differing doctrines continues to distort operational decision-making, as seen in the Gulf War and Kosovo.

In order to overcome these problems, jointness needs additional critical examination. A greater understanding of jointness and the intrinsic problems within joint operations will help solve questions of how to achieve the most effective level of jointness. Two principles, known as the Hierarchy Principle and the Necessity Principle developed by CAPT Robert C. Rubel, assist in describing inherent elements of jointness and help lead to the construction of joint theory. This paper will examine these principles through two events in World War II, and use these principles to analyze recent joint operations. This analysis will show that legislative efforts, specifically the GNA, have not overcome the problems with jointness in the context of joint operations. Finally, it will make specific recommendations based on this

analysis to build a better atmosphere for joint operations in the future, and encourage the services to become more proactively joint.

The Hierarchy Principle

The Hierarchy Principle states that the degree of cooperation (among the services) is inversely proportional to the number of command echelons.¹ The idea behind this principle is that the flatter the organization, the more apt it is to exhibit effective internal cooperation.² It is important to note that command echelons are an issue related directly to span of control. Decreasing command echelons normally leads to a wider span of control.³ Obviously, a balance between the two must occur but, in general, a flatter command structure creates cleaner communications that, in turn, lead to stronger unity of command and greater initiative and flexibility among subordinate commanders. Command and control is the single most important element of jointness.⁴

The World War II Leyte Gulf operation provides a good example of the Hierarchy Principle, as it illustrates a layered organization and its negative effects on cooperation and communication within an operation.

World War II - Leyte Operation

The command and control structure in the Pacific during World War II ran from the Joint Chiefs of Staff (JCS) in Washington down to the theater CINCs. Unlike today, the JCS had executive agent status over the Theater CINCs. General MacArthur, the CINC in the Southwest Pacific, was overall commander in charge of the Leyte operation. For this operation, Admiral Kinkaid and his Seventh Fleet forces were to be under the command of General MacArthur as part of the amphibious landing. However, control of the forces to

support the operation was not as clear. Admiral Nimitz, the CINC in the central Pacific still maintained control over part of his naval forces; specifically, the Third Fleet commanded by Admiral Halsey. Therefore, Admiral Halsey was to coordinate his activities with two commands, Nimitz and MacArthur.

This lack of unity of command created conflict. Admiral Nimitz's orders called for Admiral Halsey to provide "cover and support" to forces of the Southwest Pacific."⁵ Yet, his orders also directed: "In case opportunity for destruction of major portion of enemy fleet offer or can be created, such destruction becomes the primary task."⁶ Nimitz's orders to Admiral Halsey were contradictory in support of the operation. Because Halsey fell under the primary command of Admiral Nimitz, he interpreted the latter as his primary orders.

The problem that ensued could have been disastrous. The Japanese and its northern force, under Admiral Ozawa, approached Leyte as a decoy to draw Halsey away from the fight in order to free Admiral Kurita's forces approaching through the San Bernardino strait. Halsey took the bait based on Nimitz's orders and proceeded after Ozawa, leaving Kinkaid somewhat defenseless against Kurita. Kurita's forces, beaten down but still stronger than Kinkaid's, advanced through the strait. Through sheer bravery and luck, although they were retreating, the U.S. forces managed to confuse Kurita's forces enough to turn him back.

A closer look at the dynamics of the Leyte operation shows that the addition of another CINC into the U.S. command structure had a profound impact on unity of command and cooperation. As a four-star admiral and former airman, Halsey may have been looking for an excuse to rid himself of any supporting role. He ignored messages from his subordinates to turn back even when it was evident that Kurita was advancing east through the strait.⁷ After being ordered to turn back his forces to support Kinkaid, Halsey, reportedly

said: "I turned my back on the opportunity I had dreamed since my days as a cadet."⁸ Halsey, in line with the opinion of most naval commanders at that time, felt that the main threat to any operation involving ships or shipping was hostile carriers.⁹ The Navy culture of the time additionally assumed that a big Jutland-like naval battle would be the war-winning event. As demonstrated by his statements, Halsey's service cultural bias was a strong force to overcome in making the best decision for the operation. Halsey needed much greater unity of command to interpret his orders correctly and cooperate more effectively.

It is interesting to note that the Japanese similarly did not grasp the essentials of the Hierarchy Principle. Kurita lost situational awareness mainly due to poor communication between himself and Ozawa. If Kurita had been aware of Ozawa's success in luring Halsey from Leyte, then the outcome may have been very different. Furthermore, Admiral Toyoda commanded the operation from Tokyo, and relied heavily on Army land-based air that was never properly coordinated with the Japanese navy due to inter-service rivalry. The Japanese also needed better unity of command to coordinate among their services in the conduct of their operations in Leyte.

The Necessity Principle

The Necessity Principle states that greater jointness tends to exhibit itself on the field of battle and at the lower echelons of command.¹⁰ As a situation becomes more desperate, the level of cooperation amongst the services tends to rise. This simple principle really defines the need to be proactively joint vice waiting for a desperate combat situation.¹¹ The success of the Cactus Air Force is an example that best illustrates this principle. Like the Hierarchy Principle, the focus of this example will be on command and control.

World War II - Cactus Air Force

The formation of the Cactus Air Force in August of 1942 to conduct the Solomon's Campaign is an example of a successful integration of all the services into one cohesive fighting force. The Cactus Air Force initially consisted of five Army Air Force P-400s, a dive bomber squadron from the USS ENTERPRISE, and a Marine fighter and bomber squadron at Henderson Field on Guadalcanal. Marine Brigadier General Roy S. Geiger became the first COMAIRCACTUS. He fell under the operational control of Vice Admiral McCain, Commander, Air Forces Southern Pacific, but also reported to Marine Major General Vandegrift, the senior officer in charge of the Solomon's campaign. At first, this command and control arrangement might appear a recipe for conflict between McCain and Vandegrift; however, cooperation prevailed and not even the slightest criticism of the arrangement surfaced in either official histories or eyewitness accounts.¹²

The air operations conducted by COMAIRCACTUS covered the full range of missions including everything from close air support and battlefield air interdiction to air defense of ground and naval forces in the area of operations. It was not unusual for a carrier pilot to land at Henderson Field and be diverted to another mission against Japanese shipping, air defense or close air support.¹³ In all of this, the desperate situation on Guadalcanal was such that controversies over mission roles never appeared.¹⁴

As the Cactus Air Force grew, so did its command and control structure. After Guadalcanal, it matured into Commander, Air Solomons (COMAIRSOLS). Its staff was comprised of Navy, Marine, Army, and New Zealand Officers. The top position rotated between the services and it provided an example of the jointness sought after by the organization.¹⁵ As the air operations became increasingly complex, subordinate commands,

fighter, bomber and strike were established. For example, the bomber command was made up of long range Air Force bombers and Navy patrol aircraft, the strike command of Marine and Navy fighter and attack aircraft, and the fighter command of fighters from all three services. The subordinate commands remained diverse and although these command echelons were added, it did not affect cooperation.¹⁶

Three things attributed to the success of the Cactus Air Force and its operations in the Solomon's Campaign. First, survival and the desire for victory are major incentives to put lesser concerns aside.¹⁷ This is the hallmark of the Necessity Principle. For the Americans on Guadalcanal the situation at first was desperate. The Japanese controlled the skies over the island until later in the war, and everyone on the island was at risk to Japanese attack.

Second, the Cactus Air Force maintained unity of command. The lead service at the outset of this organization was the Navy. The Army Air Corps was not a separate service at the time; therefore, there was no question regarding who was in control. However, when an Army Air Corps officer eventually took command, the system was already functioning with a joint staff.¹⁸ The Navy and the Marine unit commanders had no difficulty accepting the arrangement. The selflessness of officers of all the services at all the command levels helped put service interests aside which contributed to the overall success of the operation.¹⁹

The final reason for success was the multi-faceted nature of the air operations conducted in the Solomon's campaign. It required the unique capabilities that all of the services brought to the fight. There was scope for nearly full play for the missions, doctrine, and equipment of all the services.²⁰ In combining these capabilities, it enhanced combat effectiveness. In essence, the whole became greater than the sum of its parts.

The Cactus Air Force is a success story and a benchmark for jointness. The necessity of the situation formed this organization and then its strength grew from within the organization itself, even with the addition of command echelons. Thus, it is also an example of the Necessity Principle overriding the Hierarchy Principle.

The insights gained from looking at the examples above provide a background with which to examine legislation that attempts to eliminate service cultural bias and differing doctrines that continue to distort operational decision making.

Goldwater-Nichols Act and Beyond

In retrospect, it is apparent that Congress has attempted to mandate jointness for the services to overcome problems with joint operations. Such legislation has sought to incorporate the qualities of the Necessity and Hierarchy Principles in an effort to achieve jointness through unification. The first such reform came in 1947 under President Truman known as the National Security Act. It attempted to mandate both cooperation and necessity into the services. This act failed primarily for substance as it based itself on an assumption of inter-service goodwill.²¹

In 1953 and 1958 amendments were passed in what appears to be legislation based upon the ideas behind the Hierarchy Principle. Amendments were passed shifting executive authority from the JCS to the military departments and finally to the Secretary of Defense. None of these amendments had any lasting effects on jointness or joint operations. Yet, after almost non-existent operational jointness in Vietnam, the failure of Desert 1, and the problems with Operation Fury in Grenada, Congress again attempted legislation seeking to

achieve more effective joint operations. In 1986, Congress enacted the Goldwater-Nichols Act (GNA).

The GNA attempts to create necessity by mandating joint service requirements for officers as a way towards officer advancement, and by establishing joint educational requirements. In addition, in order to accommodate the Hierarchy Principle, the provisions within the law provided the CINCs more authority over their subordinate elements (service components) to accomplish their mission. It removed the JCS from the chain-of-command in a clear effort to remove the service influence from unified CINC operations. In essence, the GNA addressed the Hierarchy Principle by streamlining the chain of command.

The Gulf War was the first real test of joint developments since the enactment of the GNA. At first glance, the success of the Gulf War would indicate the changes enacted by this legislation created the command and control environment that led to success. However, a closer look at the operation during the ground phase indicates that service culture still affected the goal of destroying the enemy's operational center of gravity, the Iraqi Republican Guard.

Gulf War – Operation Desert Storm

The command structure of the Gulf War was composed of functional components some of which dual-hatted as their respective service components, as General Schwarzkopf dual-hatted as the JFC and the land component commander. In planning for the ground invasion, General Schwarzkopf used a secret group of young officers known as the "Jedis." In their initial plan, the "Jedis" called for an Army based operation with the Marines in a supporting role. Meanwhile, the Marines had been planning their own full offensive in the east to compliment an Army attack in the west. Lieutenant General Boomer, the top Marine

said, "We will go quickly. We will go violently."²² When the "Jedi" plan was unveiled to the Marines, the Marines objected to it vehemently stating, "We got to be in the main attack (sic). We can't be in the supporting attack."²³ In an effort to appease the Marines, General Schwarzkopf gave them what they wanted. The resolution of this dispute would prove to be one of the critical lapses of the war.²⁴ The Marines advanced as they said they would, "quickly and violently" towards Kuwait City with little Iraqi resistance. Subsequently, the left hook, headed by the Army, could not keep up with the Marine advance in the east. Although the operation ultimately accomplished its mission of freeing Kuwait, the inability to synchronize the actions of this operation allowed the Iraqi Republican Guard to escape. This would have war termination and strategic implications in the future.

It appears the Marines, blinded by their service traditions, put the primacy of their role above the greater good of the operation originally designed by the JFC. The service influence the GNA had hoped to remove still existed in the form of service culture bias during the ground phase of this war. Despite the respect given to the Hierarchy and Necessity Principles in this legislation, the GNA does not effectively keep service bias from interfering with optimal joint operational decision-making, as seen again in Kosovo.

Kosovo – Operation Allied Force

Kosovo was similar to the Gulf War in that cultural differences also had an impact on the operation from the strategic to the tactical levels of war. At the national level, the decision not to use ground forces had to be rooted in a false sense of security that air power could be dominant. The success in the Gulf War, along with technological advances in smart weaponry, gave a strong sense of strategic relevancy to the Air Force as a service that can succeed on its own.

At the strategic and operational levels of war, the JFC, General Clark (USA) and his JFACC, Lieutenant General Short (USAF), had vastly different opinions on how to employ the use of air power. In contrast to Clark, Short strongly believed that air power was best applied at the strategic level from an inside-out perspective as in the Gulf War. He wanted the weight of the effort applied towards the Yugoslavian political infrastructure, including power plants, bridges and government buildings. General Clark wanted the weight of the effort applied at the tactical level, focusing on the Yugoslavian police forces and the Yugoslavian Third Army. These differences appear to be rooted in cultural mindsets on the employment of power.

The difficulty in precisely targeting the Yugoslavian forces due to terrain, weather and a robust Yugoslavian Integrated Air Defense System protracted the conflict.²⁵ With this operation extending past his prediction, Clark appeared to shift more of the focus of the air efforts to Short's proposed center of gravity. A degree of necessity must have played in this decision. Attacks upon the political infrastructure appeared to achieve better results. In this situation, the Necessity Principle overrode the Hierarchy Principle only after the operation was getting messy and failing to succeed. In this case, although necessity eventually overcame service cultural bias, such bias was costly to achieving operational goals.

Analysis

The GNA attempt to eliminate impediments to joint operations by tacitly recognizing and incorporating properties defined in both the Hierarchy and Necessity Principles was not fully successful. As seen in the Gulf War and Kosovo, the services' respective cultural bias still influence and impact at the component level, hindering cooperation. In essence, the provisions within the GNA are not enough to modify the services' behavior beyond their

cultural biases, even in wartime situations. The service command echelon still exists in the form that permits service biases to interfere in sound operational decision-making.

The current JTF command and control structure does not need altering. It provides the foundation for unity of command and designed as a flat organization, it gives opportunity for cooperation among the components. Narrowing the span of control at the componency level would only be akin to true unification of the services. Unification of the services is clearly undesirable, as the example of the unhappy history of the Canadian Armed forces can attest.²⁶ Maintaining service roles and missions is important to innovation and expertise. Balancing the need to maintain service autonomy while eliminating the adverse effects of service influence requires a closer look at componency. Componency is where jointness and the services meet at the operational-tactical level.

Componency and Recommendations

Jointness is not holistically designed.²⁷ In other words, jointness has been built from the services themselves and not from the top down. Jointness must be envisioned as a concept unto itself, not a concept based on service compromises.²⁸ This is difficult today because the services view jointness as a zero-sum game.

Service forces make up the components. As seen in the Gulf War, when a service component feels threatened, the reaction can be adverse towards cooperation. Instead of accepting the role chosen for it, the service component decides to challenge it or interpret orders in a manner good only for the service.²⁹ Cultural backgrounds can cloud the good of an operation as well. A single-minded view of an operation based on a perception that a single capability or component can solve all of the problems can lead to false hope and failed

missions, as seen in Kosovo. It is apparent that no matter what necessity exists or hierarchy arrangements made, service cultural aspirations are very difficult to overcome. This can have a serious impact on decision-making at the operational level.

In addition, as in the Navy, much has been written on what has been commonly referred to as the "glass ceiling", where even within the service itself, there is a feeling of community parochialism, especially in the flag selection process.³⁰ Normally at JTF commander levels, the commander is a flag or general officer promoted by the service and detailed through the respective service chief. Officers, promoted by service boards, feel beholden to their parent service. Thus, no matter how flat the JTF organization, this promotion arrangement has the effect of increasing the height of the hierarchy. A joint promotion board will help flatten it out.

Therefore, moving control of all of the flag and general officer promotion and detailing processes into the Office of the Secretary of Defense is a necessary recommendation to undertake. By centralizing this area of promotions, the intangible factor of service obligation is removed. In effect, this move attempts to drive service influence from possible interference in joint operations. Component commanders would not feel the weight of their services in their decision making. Instead, the good of the whole joint organization comes before the good of the service. This can only have a positive effect at the joint operational level.

It would be unrealistic to think that a new centralized flag promotion process could eliminate service involvement all together. Services would present or brief the officers in zone for flag promotion based on joint educational and joint service requirements balanced against service accomplishments. At a minimum, voting members would be the Deputy

Secretary of Defense, the JCS members, and deputy CINCs. Although difficult to determine, intangible factors relating to an officer's ability, as a joint team member would be included as part of the review. However, in the case of the Navy and its forward deployments into CINC theaters, the CINCs could provide that extra insight to the boards.

Validating new joint concepts is another process that works to eliminate service biases by building trust, as services participate and view the results. JFCOM's current mission to maximize present and future capabilities through joint experimentation and training, total force integration, and providing ready CONUS-based forces to support other CINC's, assists in this effort. However, JFCOM does not possess the necessary leverage over the services to accomplish all of its missions.³¹ In addition, the number of requirements and possible interactions within joint operations increases the complexity of the experimentation process, burdening resource requirements JFCOM does not have.³²

Currently, the Office of the Secretary of Defense manages Joint Test and Evaluation (JT&E) programs. The OSD sponsors the JT&E programs that focus primarily on addressing near-term solutions to CINC requirements. The independent status of the OSD JT&E was structured well before the establishment of JFCOM in an effort to minimize the influence of service biases in joint concept evaluations.³³ JFCOM's mission and JT&E activities overlap in near-term efforts. In order to enhance JFCOM's near-term efforts to advance joint operational capabilities, it is recommended that JT&E and JFCOM consolidate efforts under OSD oversight.³⁴ Transferring JT&E activities to JFCOM will increase venues for addressing Joint Force concerns and provide JFCOM a viable methodology to experiment in the near term.³⁵ This transfer also provides JFCOM more opportunities to work closer with

the CINCs.³⁶ The addition of OSD oversight through this consolidation leverages service involvement needed to tackle the many joint integration possibilities.

One drawback to this consolidation is the continued centralization of JFCOM. Such a drawback was displayed in 1992 when then USACOM, Admiral Paul David Miller, as the new joint force integrator, designed an alternative forward presence package without the approval from the other unified CINCs. The package was in the form of a Marine air-ground task force deployed on board an aircraft carrier. When a crisis erupted that did not call for Marine involvement, the battle group commander had to stop and consider pulling into port and disembarking the Marines for his strike assets. The lesson here was that adaptive joint force packaging reduced the combat capabilities of both the carrier and the Marine expeditionary unit.³⁷

Obviously, this lesson need not be repeated. Future CINC concerns that may arise are effectively addressed by the suggested OSD oversight of the consolidation of JT&E and JFCOM. Consolidating the efforts of JT&E and JFCOM is more efficient, cost effective, and is an important way to develop the critical analysis needed to help develop joint theories.

Future Implications and Conclusions

Technology cannot be expected to simplify the joint problem. History has proven that although technology has the ability to enhance warfare, it does not simplify it. If anything, it has only proven to complicate warfare. For example, air power joined sea and land at the beginning of the 20th century and space and the electromagnetic spectrum joined warfare as dimensions in the second half of the century.³⁸ With the advent of Network Centric Warfare (NCW), the cyber dimension will be the way we fight in the information

age. Advocates of NCW believe that the command and control structure will flatten even further and that the levels of warfare (strategic, operational, tactical) will overlap. They also call for a common operating picture that will provide the ability to self-synchronize geographically dispersed forces, a concept of sharing information and assets. Furthermore, advocates of NCW proclaim that jointness will have to mirror NCW and therefore co-evolve with it.³⁹ In order to make this a reality, the military must eliminate the service bias problems that impede effective joint operations today.

In addition, the military of tomorrow will face a wide range of challenges requiring creation of a force that is dominant across the full range of military operations.⁴⁰ As most believe, the military will be more involved in MOOTW vice traditional warfare. It will require us to be faster in response and quicker in operational accomplishment. Further, the military will have to find innovative concepts to handle the variety of problems it may face. Joining as a force in an ad hoc manner cannot be the normal mode of operations for the future. The necessity of acting quickly and decisively will require the armed forces to be proactively joint. Centralizing the flag/general officer promotion process and enhancing joint test and experimentation efforts will help eliminate service biases and create service involvement in joint concepts. This in turn will push the services closer to a more proactive joint environment.

Achieving jointness is a difficult task. As one author on joint operations stated:

"Like schools of thought in art, the intensity of partisanship on issues of jointness has sometimes approached the level of emotion held toward foes in war, for it touches closely on the critical bonding and cohesion that lie at the heart of military institutions, and their predisposition to see the world in 'them-us terms.'"⁴¹

These two recommendations arrived at with the assistance of the Hierarchy and Necessity Principles will not completely overcome the barriers to jointness. However, if implemented, they will prove to be important steps to speeding up the ongoing evolutionary process seeking more solutions to the problems of joint military operations and the development of joint theory.

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